

Proceedings of the Pacific Coast Entomological Society, 1986

FOUR HUNDRED AND FORTY-FOURTH MEETING

The 444th meeting was held Friday, 21 February 1986, at 8:15 P.M., in the Morrison Auditorium, California Academy of Sciences, Golden Gate Park, San Francisco, with President Mr. Larry G. Bezark presiding.

The minutes of the meeting held 13 December 1985 were read and accepted. Nine persons were proposed and elected as new members: Mr. Richard L. Bottorff and Mr. Tim A. Christiansen as student members; Mr. Richard P. and Mrs. Louise H. Fall as regular family members; and Mr. Robert D. Haines, Dr. Patricia G. Lincoln, Mr. Terry D. Miller, Dr. Frank J. Radovsky, and Dr. Jose A. Ramos as regular members.

Mr. Bezark announced the topics for some of the forthcoming meetings. Several guests were introduced. Dr. Kirby A. Brown showed slides of bronze medallions casted in 1911 by the Paris mint in honor of the famous entomologist Jean-Henri Fabre.

The featured speaker, Dr. Jarmila Kukalova-Peck, Department of Geology, Carleton University, Ottawa, presented a lecture entitled "Paleozoic Insects, the Origin of Wings and the Evolution of Insect Flight." She showed slides of these monstrous and bizarre-looking insects from the Carboniferous and Permian Periods, a majority of which have highly modified beaks for penetrating and sucking the strobili of primitive plants. She discussed the old paranotal theory which proposes evolution of flight by gradual modifications of the paranotal lobes from rigid gliding structures to foldable, then flapping structures, and finally to wings that can power flight. Combining knowledge from paleontology, embryology, and comparative anatomy, she presented her own "exite-ting" theory which proposes wing evolution from basipodite exites that migrated from the ventral to the dorso-lateral position. The presence of musculature in the articulations of the wings supports her theory that any prewing structures were already flexible before true wings evolved. Nearly all of the very early insects also had segmented abdominal legs. Her research also led her to conclude that the Arthropoda is a monophyletic group.

The social hour was held in the entomology conference room following adjournment of the meeting.

A total of 102 persons was present, of which 51 signed as members and 29 as guests.—V. F. Lee, Secretary.

FOUR HUNDRED AND FORTY-FIFTH MEETING

The 445th meeting was held Friday, 21 March 1986, at 8:15 P.M., in Mulford Hall, University of California, Berkeley, with President Mr. Larry G. Bezark presiding.

The minutes of the meeting held 21 February 1986 were read and accepted. Five persons were proposed and elected as new members: Mr. Marc L. Utheim as a student member; and Dr. Edward I. Coher, Prof. Hua Lizhong, Dr. Daniel Udovic, and Dr. Floyd G. Werner as regular members.

Mr. Bezark mentioned a few papers that appeared in some recent journals and the recent publication of the 1986 volume of *Annual Review of Entomology*. Dr. Edward L. Smith presented his recent findings on a proposed new classification of the hexapodan groups.

The featured speaker, Dr. David H. Kistner, Chico State University, presented a lecture entitled "Wallace, Wallace's Lines, and the Wallace Expedition." He gave a brief biographical sketch of Alfred Russell Wallace and discussed the Wallace's Lines, which separate the Oriental from the Australian Zoogeographical Regions. He suggested that the fauna of Sulawesi (or Celebes) might have been influenced by plate tectonics since the island is a composite of land masses from each of these regions. In 1985, the Royal Entomological Society of London celebrated its 150th anniversary by sponsoring the year-long Wallace Expedition, which is the largest expedition in the last 50 years, involving 102 scientists, including Dr. Kistner and his wife, Alzada. She discussed the logistics of the expedition, in which volunteers from the British military helped by carrying supplies and setting up camp, etc. for the scientists. Dr. Kistner discussed his research on the termitophilic staphylinids taken from termite nests in the Oriental part of the island.

The social hour was held in Wellman Hall following adjournment of the meeting.

A total of 63 persons was present, of which 34 signed as members and 14 as guests.—V. F. Lee, Secretary.

FOUR HUNDRED AND FORTY-SIXTH MEETING

The 446th meeting was held Friday, 18 April 1986, at 8:15 P.M., in Morrison Auditorium, California Academy of Sciences, Golden Gate Park, San Francisco, with President Mr. Larry G. Bezark presiding.

The minutes of the meeting held 21 March 1986 were read and accepted. Two persons were proposed and elected as new regular members: Dr. Jeffrey C. Burne and Dr. Robert V. Dowell.

The featured speaker, Dr. Kirby W. Brown, entomologist with the San Joaquin County Department of Agriculture, Stockton, presented a lecture entitled "Paper Beetles or Adventures in Literature." He showed slides of some old entomological books, some of which had very decorative title pages, and discussed the evolution of colored illustrations from copper to steel engravings with hand-painted colors to chromolithographs to photographs. He also discussed the importance of literature to taxonomists. He summarized the history of entomological literature from the perspective of expeditions, taxonomic monographs, faunistic studies, and book catalogs. He emphasized that books produced today cannot duplicate the efforts that went into the older ones because of higher production costs. However, the older books are being destroyed for their colored plates, which are often removed, framed, and sold separately to command higher prices than if the books were to be sold intact. Their scientific value is therefore much reduced.

The social hour was held in the entomology conference room following adjournment of the meeting.

A total of 36 persons was present, of which 23 signed as members and 11 as guest.—V. F. Lee, Secretary.

FOUR HUNDRED AND FORTY-SEVENTH MEETING

The 447th meeting was held Friday, 17 October 1986, at 8:15 P.M., in Morrison Auditorium, California Academy of Sciences, Golden Gate Park, San Francisco, with President Mr. Larry G. Bezark presiding.

The minutes of the meeting held 18 April 1986 were read and accepted. Twelve persons were proposed and elected as new members: Mr. Timothy G. Myles, Mr. Felipe N. Soto Adames, and Mr. William P. Weaver Jr. as student members for 1986, and Mr. Gregory S. Forbes, Mr. Elgin E. Huckstep, Mr. Timothy A. Kellogg, Mr. Stephen A. Manweiler, Mr. Ronald G. Robertson, Dr. Geoffrey G. E. Scudder, and Dr. William D. Shepard as regular members for 1986, and Mr. Craig Sondergaard and Dr. Gregory R. Walker as regular members for 1987.

Mr. Bezark announced two forthcoming entomological conferences and presented slides of his summer collecting trip to the Rockies. Dr. Edward L. Smith presented slides of the Eagle Lake Biological Field Station, operated by California State University, Chico, that is being threatened with closure due to lack of funding, and make an appeal for letters of support from the audience.

The featured speaker, Dr. Harry Greene, professor of zoology at the University of California, Berkeley, presented a lecture entitled "Behavioral Ecology of Tropical Predators." He showed slides of predatory vertebrates and invertebrates of the Finca La Selva station in Costa Rica and discussed why there is an increase in the diversity of vertebrates when one compares the polar areas to the tropics. He also suggested that larger vertebrate predators in the tropics should not be eliminated because they can check the smaller predators which are able to more significantly affect avian populations.

The social hour was held in the entomology conference room following adjournment of the meeting.

A total of 71 persons was present, of which 44 signed as members and 20 as guests.—V. F. Lee, Secretary.

FOUR HUNDRED AND FORTY-EIGHTH MEETING

The 448th meeting was held as a joint meeting with the Northern California Spider Society on Friday, 21 November 1986, at 8:15 P.M., in Mulford Hall, University of California, Berkeley, with President Mr. Larry G. Bezark presiding.

The minutes of the meeting held 17 October 1986 were read and accepted. Two persons were proposed and elected as new student members for 1987: Mr. Dennis W. Gray and Mr. Larry J. Orsak.

Mr. Bezark appointed members of the auditing committee, consisting of Mr. H. Vannoy Davis (as chair), Dr. Paul H. Arnaud Jr., and Mrs. Helen K. Court, and the nominating committee, consisting of Dr. Clifford Y. Kitayama (as chair), Dr. Barry M. Wilk, and Dr. Robbin W. Thorp. He reminded the audience of the forthcoming Entomological Society of America meeting in Reno in December. He demonstrated a way to conserve space when pinning specimens into schmitt boxes. Dr. J. Gordon Edwards showed slides of his recent trip to New Zealand. Mr. Bezark then introduced Dr. Jack B. Fraser,

president of the Northern California Spider Society, who invited members of the audience to join the spider society and offered their tee shirts for sale.

Dr. Fraser introduced the featured speaker, Ms. Teresa Meikle-Griswold, Natal Museum, Pietermaritzburg, South Africa, who presented a slide lecture entitled "The Natural History of Two Species of Group-living Eresid Spiders in Southern Africa." She discussed the natural history of *Magunia dunicola* (Pocock) and *Stegodyphus mimosarum* Pavesi, commonly called community spiders. These spiders form group living cooperatives. She showed that the eresid colonies are very complex biological communities, with predators, parasitoids, and kleptoparasites living among the eresids. The Zulus utilize these spiders in the control of flies that live around cattle pens.

The social hour was held in Wellman Hall following adjournment of the meeting.

A total of 55 persons was present, of which 28 signed as members and 22 as guests.—V. F. Lee, Secretary.

FOUR HUNDRED AND FORTY-NINTH MEETING

The 449th meeting was held on Friday, 12 December 1986, at 8:20 P.M., in Morrison Auditorium, California Academy of Sciences, San Francisco, with President Mr. Larry G. Bezark presiding.

The minutes of the meeting held 21 November 1986 were read and accepted. Three persons were proposed and elected as new regular members: for 1986, Dr. Allen M. Young, and for 1987, Mr. E. Penryn Flemyng and Dr. Paul K. Lago.

Mr. Bezark introduced his parents, Bud and Betty. Dr. Stanley C. Williams introduced Dr. Donald K. Fletcher. Mr. Bezark announced that he recently returned from the Entomological Society of American meetings where he saw Christmas cards with depictions of insects, a new book with keys to braconids, and a new book on Pacific Island names. He then called for committee reports. Dr. Paul H. Arnaud Jr., chair of the historical committee, reported that there was considerable use of the Albert Koebele notes. Mr. Daniel F. Gross, chair of the membership committee, reported that the 1986 membership rolls consisted of 433 members, including 306 regular members, 60 student members, 44 sponsoring members and sponsoring family members. The year saw an addition of 38 new members, 27 regular and 11 student members. He then read the names of the members who continue to support the journal by being sponsoring members for 1986: Phillip A. Adams, Robert P. Allen, Richard K. Allen, William F. Barr, Richard M. Bohart, Paula and Robert Buickerood, Donald J. Burdick, Leopoldo E. Caltagirone, Arthur L. Chan, Kenneth W. Cooper, J. Gordon and Alice Edwards, George R. Ferguson, William E. and Stephenie S. Ferguson, Wayne C. Field Jr., Eric M. Fisher, John G. Franclemont, E. Eric Grissell, John E. Hafernik Jr., Kenneth S. Hagen, Alice S. Hunter, Johannes L. Joos, Benjamin Keh, Dennis M. Kubly, Robert J. Lyon, Robert L. Mangan, David G. Marqua, Gordon A. Marsh, Woodrow W. Middlekauff, Robert B. Miller, Calvert E. Norland, Harry W. Oswald, Richard L. Penrose, Jacqueline L. Robertson, Leslie S. Saul, Evert I. Schlinger, David B. Scott, Harvey I. Scudder, Terry N. Seeno, Frank E. Skinner, Edward L. Smith, Roy R. Snelling, Marius S. and Joanne S. Wasbauer, and David B. Weissman. Dr. Arnaud read notes from Mr. H. Vannoy Davis, chair of the auditing committee, stating that the financial books of the Society were in good order. He also read a report from Dr. Wojciech J. Pulawski, Treasurer, on the fund balances of the Society as of 30 September 1986, and thanked Mrs. L. Gail Freihofer and Mr. Davis for their help in maintaining the books. He mentioned that page charges for Dr. Hua Lizhong's paper on new Chinese cerambycids, published in vol. 62 of *The Pan-Pacific Entomologist*, was supported by a grant from the Charles P. Alexander Publication Fund. Mr. Bezark raffled a book, *California Insects* by Powell and Hogue, to a member of the audience.

Dr. Clifford Y. Kitayama, chair of the nominating committee, proposed the 1987 slate of candidates for officers: Dr. Stanley C. Williams, as president, Dr. Wojciech J. Pulawski, as treasurer, Mr. Vincent F. Lee, as secretary, and Mr. Alan I. Kaplan, as president-elect. The members of the Society then voted in the slate as officers for the new year. Mr. Bezark handed the gavel over to the president, Dr. Williams, who then presided over the remainder of the meeting.

Mr. Lee announced that, by the action of the publication committee, the Society has changed the printer for the journal: A-R Editions of Madison, Wisconsin will replace Allen Press, starting in 1987. Dr. Ronald E. Stecker mentioned that a former entomology student of San Jose State University, Mr. Robert Anderson, died tragically in an auto accident a few months ago. Dr. Williams announced with regret that the Society will not participate in the annual meeting of the American Association for the Advancement of Science-Pacific Division in San Diego in June 1987. However, he suggested that the Society put on an all-day seminar and meeting in place of it at the end of the year.

Dr. Edward L. Smith announced two new books: *Spider: Webs, Behavior, and Evolution*, edited by W. A. Shear, and E. N. Kjellesvig-Waering's posthumous monograph on the fossil scorpions of the world, published in *Palaeontologica Americana*. He also showed drawings of Carboniferous thysanurans, japygids, and monurans, and a rediscovered Protodonata, which was previously misidentified as belonging to another insect order, executed by Dr. Jarmila Kukalova-Peck. Mr. Benjamin Keh showed a book on insect studies in China, written in Esperanto. Mr. Dean W. Jamieson mentioned that insect and arachnid specimens from Iran collected by Mr. Bruce Sanford will be on display at the social hour. Mr. Larry J. Orsak showed slides of possible spider mimics by tephritids and possibly by otitids, possible spider images on wings of geometrids in Wau, New Guinea, and noctuid caterpillars which resemble teratological flowers in Arizona.

Dr. Williams introduced the featured speaker, Mr. Larry G. Bezark, Biological Control Services, California Department of Food Agriculture, Sacramento, who presented the presidential address entitled "Biological Control of Water Hyacinth in California." He discussed the introduction and spread of this aquatic weed, the world's most prolific plant, and the attempts to control it in California with two species of weevils (*Neochetina bruchi* Hustache and *N. eichorniae* Warner) and one species of pyralid moth (*Sameodes albiguttalis* (Warren)). He talked about the life cycles of the host and the biological control agents. The insects are now well established in California and are keeping the weed in check.

The social hour was held in the entomology conference room following adjournment of the meeting.

A total of 42 persons was present, of which 30 signed as members and 12 as guests.—V. F. Lee, Secretary.

PACIFIC COAST ENTOMOLOGICAL SOCIETY
STATEMENT OF INCOME, EXPENDITURES AND
CHANGES IN FUND BALANCES

Year Ended September 30, 1986 and 1985

	<u>1986</u>	<u>1985</u>
Income		
Dues and subscriptions	\$11,450	\$ 9,714
Reprints and miscellaneous	12,179	20,504
Sales of Memoirs	74	47
Interest	5,013	5,708
Dividends	485	463
Increase in value of capital stock: American Telephone & Telegraph Com- pany and Pacific Telesis Group	<u>2,477</u>	<u>402</u>
	<u>\$31,678</u>	<u>\$36,838</u>
 Expenditures		
Publication costs—Pan-Pacific Entomologist	\$18,343	\$25,165
Reprints, postage and miscellaneous	1,087	514
IBM Personal Computer	<u>2,400</u>	<u>2,400</u>
	<u>\$19,430</u>	<u>\$28,079</u>
 Increase (Decrease) in fund balances	\$12,248	\$ 8,759
Fund balances October 1, 1985 and 1984	<u>87,230</u>	<u>78,471</u>
Fund balances September 30, 1986 and 1985	<u>\$99,478</u>	<u>\$87,230</u>

STATEMENT OF ASSETS

September 30, 1986 and 1985

	<u>1986</u>	<u>1985</u>
Cash in bank		
Commercial account	\$ 9,258	\$ 3,941
Savings accounts & Certificates of Deposit		
General Fund	18,863	17,832
Charles P. Alexander Fund	36,264	34,282
Fall Memoir Fund	<u>26,359</u>	<u>24,918</u>
Total cash in bank	<u>\$90,744</u>	<u>\$80,973</u>
 Investment in 80 shares of American Telephone & Telegraph Co. common stock and 132 shares of Pacific Telesis Group at market value.	<u>\$ 8,734</u>	<u>\$ 6,257</u>
	<u>\$99,478</u>	<u>\$87,230</u>

See accompanying notes to the financial statements on following page.

PACIFIC COAST ENTOMOLOGICAL SOCIETY
NOTES TO THE FINANCIAL STATEMENTS

Year Ended September 30, 1986

Summary of Significant Accounting Policies

Accounting Method: Income and expenses are recorded by using the cash basis of accounting. *Capital Expenditures:* Annual capital expenditures of \$5,000 or less are charged to expense. *Marketable Securities:* American Telephone & Telegraph Co. and Pacific Telesis Group common stock are carried at market value. Increases and decreases in value are reflected in income. *Income Tax:* The Society is exempt from Federal income and California franchise tax. *Undeposited Receipts*—\$525. *Accounts Receivable*—\$3,322. *Accounts Payable*—\$7,042.

As Chairman of the Auditing Committee, and in accordance with its bylaws, I have reviewed the financial records of the Society.

During the course of this review nothing was noted which indicated any material inaccuracy in the foregoing statements.

H. Vannoy Davis
Chairman of the Auditing Committee